

REMARKS/ARGUMENTS

The Examiner is thanked for the detailed comments. While the Applicants have carefully reviewed the Examiner's rejections, they respectfully request the Examiner's further consideration of the reasons set out below:

RE: Claim Rejections – 35 U.S.C. § 102 (Anticipation)

Claims 1, 3-6, and 12-13 were rejected under 35 U.S.C §102(e) as being anticipated by Clark et al. US Publication no. 2004/0208516.

In the Advisory Action, the examiner argues that Figures 3 and 4 of Clark disclose an optical system, wherein “the power control unit 360 control(s) the launch power (or start up power) of Tx 350 by adjusting (*i.e. gradually increasing or decreasing optical power of an optical signal - comments of the examiner*) of Tx 350 based on the SNR that is detected at the monitoring points”.

Firstly, the Oxford dictionary defines “adjust” as “arrange, put in correct order or position, regulate”. It does not describe a **gradual** change. Secondly, the present invention discloses not only increasing power gradually, but also increasing the power until an optical signal is just detectable at a minimal detectable level. This prevents damage of optical components due to excessive power.

In contrast, Clark describes “adjusting the launch power profile” until various conditions are met, the most general of which is “until the determined power-related parameters substantially equal the set of desired parameters” (claim 17 of Clark). Clark does not suggest that the “desired parameters” are that the power is at a minimal detectable level. Indeed, Clark further discloses the condition of producing “a substantially constant SNR profile over a subset of system spans”, which is not related to the present invention.

In yet further contrast, Clark discloses **setting** power levels opposed to gradually increasing and detecting an optical signal at a minimal power level of the present invention. In particular, Clark states that “the process may begin by setting an initial launch power profile” [paragraph 0032 lines 4-5 of Clark]. Thus, unlike the present invention, Clark describes setting the power to a specific predetermined value. The present invention, on the other hand, discloses the step (c) of “gradually increasing optical power of an optical signal ... until the optical signal at a minimal detectable level is detected at the monitoring point”, which is not equivalent to “setting power levels” of Clark. In the present invention, there is no predetermined power value to which the power is set, as disclosed in Clark. Then, Clark discloses calculating a pre-emphasis value to make SNR constant across wavelengths, the pre-emphasis value is added to the launch power.

Again, in Clark, it is a single adjustment of power to a calculated value, which is not present in claim 1 of this invention.

The examiner refers specifically to the last sentence of paragraph 0033 of Clark: “Acts 505-520 may be selectively repeated until the measured SNR(λ) is approximately constant”. The present invention does not disclose measuring SNR and does not disclose adjusting power to make SNR(λ) approximately constant. Also, the repetition of the step (c) in the present invention is not selectively repeated as described in Clark, instead the step (c) as well as steps (d) and (e) of the present invention are repeated for every section in a link (step (f) of claim 1) and are done sequentially moving away from the transmitter (step (e) of claim 1).

The examiner further states that “ if the SNR across each wavelength is not approximately constant, a pre-emphasis value is determined”, which is erroneously equated with the step (d) of the present invention for verifying if the detected optical signal at the minimal detectable level is being detected at a correct location according to a network specification and if the power of the detected optical signal is at the expected level according to the network specification.”

The Applicants submit that these two steps are **not** equivalent. In the present invention, step (d) verifies that the network is configured according to a network specification by verifying that an optical signal is at the correct location and at an expected power level. This is performed with the power of the optical signal at the minimum detectable level, as accomplished by the preceding step (c) of the present invention.

Thus, the step (d) of the present invention does not include calculating an operating power level, as Clark does by determining a pre-emphasis value.

Finally, the examiner states that “Clark further discloses in paragraphs 0032-0033 that the SNR may then be measured over a subset of spans, such as m spans of the n spans system, where $m < n$ ”, and erroneously equates it with the step (e) of the present invention of selecting a next section of the optical link adjacent to the previously selected section and further away from the transmitter in the optical network.” These two steps are **not** equivalent, because Clark does not disclose or suggest selecting each and every section of the optical link successively from the transmitter to the receiver.

Thus, Clark does not have all the features of the amended claim 1, and therefore the present invention cannot be anticipated by Clark.

Independent claim 12 has been amended similar to claim 1. Other claims depend on claims 1 or 12 and include further limitations.

Conclusion

No new matter has been added.

As argued above, the present invention is not anticipated by Clark, and therefore the examiner's rejections under 35 USC 102 have been overcome.

In view of the foregoing, a favorable consideration of the application is courteously requested.

Respectfully submitted,
McCloskey, et al

A handwritten signature in black ink, appearing to read "Victoria Donnelly", with a stylized flourish at the end.

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